

the modulation scheme of subcarriers having a high power level is increased, whereas the modulation scheme of subcarriers having a poor power level is decreased departing from a default modulation scheme.

4. (Amended) Method according to claim 1,  
characterized in that

*A1*  
the modulation schemes of the subcarriers are adapted such that the total number of coded bits per symbol is constant.

5. (Amended) Method according to claim 1,  
characterized in that

*D*  
along with the adaptation of the modulation schemes the transmission power of the subcarriers are adapted such that the total transmission power of all subcarriers remains unchanged.

*A2*  
7. (Amended) Method according to claim 1,  
characterized in that

an adaptive loading information reflecting the adaptation of the modulation scheme of the subcarriers is exchanged between a transmitter (11) and a receiver (10).

*A3*  
9. (Amended) Method according to claim 1,  
characterized in that

a plurality of subcarriers is bundled into groups and the same modulation scheme is applied for all subcarriers belonging to the same group.

*RJ*  
11. (Amended) Computer software program product,  
characterized in that

it implements a method according to claim 1 when run on a computing device of a wireless transmitting device.